

What is claimed is:

- 1. An inorganic particle-containing composition comprising:
  - (A) inorganic particles;
  - (B) a binder resin; and
- (C) at least one plasticizer selected from the group consisting of compounds represented by the following formula (1):

$$R^{1}+O-R^{2}+_{m}OOC-(CH_{2}+_{n}COO+R^{3}-O)_{m}R^{4}$$
 (1)

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wherein  $R^1$  and  $R^4$  are the same or different alkyl groups having 1 to 30 carbon atoms or alkenyl groups,  $R^2$  and  $R^3$  are the same or different alkylene groups having 1 to 30 carbon atoms or alkenylene groups, m is an integer of 0 to 5, and n is an integer of 1 to 10,

and compounds represented by the following formula (2):

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wherein  $R^5$  is an alkyl group having 1 to 30 carbon atoms or alkenyl group.

- 2. The inorganic particle-containing composition of claim 1, wherein the inorganic particles (A) are at least one electrically co-aductive particles pa selected from the group consisting of Ag, Au, Al, Ni, Ag-Pd alloy, Cu and Cr.
- 3. The inorganic particle-containing composition of claim 1, wherein the binder resin (B) is an acrylic resin containing a polymer unit derived from a compound represented by the following formula (3):

$$\begin{array}{c}
R^{6} \\
CH_{2} = C - COOR^{7}
\end{array} \tag{3}$$

A transfer film and a plasma display panel production process using the composition are also described.

wherein  $R^6$  is a hydrogen atom or methyl group, and  $R^7$  is a monovalent organic group.

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- 4. The inorganic particle-containing composition of claim 1, wherein the binder resin is at least one member selected from the group consisting of a homopolymer of a (meth)acrylate compound represented by the above formula (3),
- a copolymer of two or more (meth)acrylate compounds represented by the above formula (3) and a copolymer of a (meth)acrylate compound represented by the above formula (3) and other copolymerizable monomer.
- 5. The inorganic particle-containing composition of claim 1 which further contains a silane coupling agent represented by the following formula (4):

$$(C_{p}H_{2p+1})$$
—Si- $(OC_{m}H_{2m+1})_{a}$ 
 $(C_{n}H_{2n+1})_{3-a}$ 
 $(4)$ 

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wherein p is an integer of 3 to 20, m is an integer of 1 to 3, n is an integer of 1 to 3, and a is an integer of 1 to 3.

25 6. The inorganic particle-containing composition of claim 1 which contains 5 to 80 parts by weight of the binder resin (B) and 0.1 to 20 parts by weight of the plasticizer (C) based on 100 parts by weight of the inorganic particles (A).

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7. A transfer film comprising a base film and a film forming material layer formed of the inorganic particle-containing composition of claim 1 on the base film.

8. A plasma display panel production process comprising the steps of:

transferring the film forming material layer of the transfer film of claim 7 to the surface of a substrate; and baking the transferred film forming material layer to form an dielectric layer on the substrate.

9. A plasma display panel production process comprising the steps of:

transferring a film forming material layer formed of the inorganic particle-containing composition of claim 1 to the surface of a substrate;

forming a resist film on the transferred film forming material layer;

exposing the resist film to form a resist pattern latent image;

developing the resist film to form a resist pattern; etching the film forming material layer to form a pattern layer corresponding to the resist pattern; and

baking the pattern layer to form a constituent element selected from the group consisting of a barrier, electrode, resistor, dielectric layer, phosphor, color filter and black matrix.

25 10. A plasma display panel production process comprising the steps of:

transferring a film forming material layer formed of the inorganic particle-containing composition of claim 2 to the surface of a substrate;

forming a resist film on the transferred film forming material layer;

exposing the resist film to form a resist pattern latent image.

developing the resist film to form a resist pattern;

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etching the film forming material layer to form a pattern layer corresponding to the resist pattern; and baking the pattern layer to form electrodes.

5 11. A plasma display panel production process comprising the steps of:

forming a laminate film consisting of a resist film and a film forming material layer formed of the inorganic particle-containing composition of claim 1 on a base film in the order named;

transferring the laminate f'ilm formed on the base film to the surface of a substrate;

exposing the resist film constituting the laminate film to form a resist pattern latent image;

developing the resist/film to form a resist pattern; etching the film forming material layer to form a pattern layer corresponding to the resist pattern; and

baking the pattern layer to form a constituent element selected from the group consisting of a barrier, electrode, resistor, dielectric layer, phosphor, color filter and black matrix.

12. A plasma display panel production process comprising the steps of:

forming a laminate film consisting of a resist film and a film forming material layer formed of the inorganic particle-containing composition of claim 2 on a base film in the order named;

transferring the laminate film formed on the base film 30 to the surface of a substrate;

exposing the resist film constituting the laminate film to form a resist pattern latent image;

developing the resist film to form a resist pattern; etching the film forming material layer to form a

pattern layer corresponding to the resist pattern; and baking the pattern layer to form electrodes.

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